

Amendments to the Specification:

Page 2, delete the paragraph beginning on line 32, and insert therefor the following paragraph:

The present invention is summarized in a method for operating a computer network to direct the transmission of a document by facsimile transmission that uses a method of general document recognition. The general document recognition method receives a document from a user on the network to be transmitted to a recipient, and first tests the document against a set of previously defined rules to determine which document type, from a set of previously identified document types, matches the document. Then the systems extracts data from the document, based on previously defined rules associated with that document type, the extracted data identifying either the intended destination or the intended recipient of the document. If the extracted data identifies the intended destination of the document, the system then sends the document by facsimile transmission to that destination. If the extracted data identifies only the intended recipient, then the system sends a query to a ~~data-base~~ database containing destination information associated with a pre-defined set of recipients. The query identifies the recipient and requests as a response a destination associated with the intended recipient. Upon a response to the query, the system sends the document by facsimile transmission to that destination identified in the response.

Page 7, delete the paragraph beginning on line 7, and insert therefor the following paragraph:

The alternative, indicated at step 218, is to extract a recipient name from the document and then refer the system to a ~~data-bank~~ databank to find the facsimile telephone number of the intended recipient. The GDR system is set up to recognize several ~~data-bases~~ databases, or phone books, to access the needed information. With this alternative, the system is set up for a given document type to extract from the document the name, department, title or other identification of the intended recipient of the facsimile. The parameters of the document type, entered by the system administrator, designate which among several different ~~data-bases~~ databases the system is to look for the destination information for a particular document type. The ~~data-bases~~ databases can include a special ~~data-base~~ database of telephone numbers set up for the facsimile transmission function or, most preferably, can be a LDAP ~~data-base~~ database used by the network. The acronym LDAP (Lightweight Directory Access Protocol) is a protocol for addressing on-line directory

services over TCP/IP, and is a standard supported by many vendors. The LDAP directory is a collection of attributes with an unambiguous assigned name called a distinguished name (DN). The DN has associated with it various attributes of the individual associated with the DN such as alternative names, address, and including, in this instance, the person's facsimile telephone number. The system thus set up to retrieve from the document a name or identification of the intended recipient and use that information to query the LDAP ~~data-base~~ database for the facsimile telephone number of that intended recipient. Note that the LDAP ~~data-base~~ database can be maintained in a remote server as long as that server can be ~~access~~ accessed on-line.

Page 7, delete the paragraph beginning on line 28, and insert therefor the following paragraph:

White the use of the LDAP ~~data-base~~ database is preferred, it is intended that the system can be configured to access any suitable ~~data-base~~ database to find the needed information. The set-up parameters should permit the designation of other external ~~data banks~~ databanks as the data source to access to identify where to send a facsimile of a particular document type.

Page 7, delete the paragraph beginning on line 35, and insert therefor the following paragraph:

In the operation of the GDR system to process an actual document, the data flow follows the general plan that was used in the document type set up process. This flow is illustrated in Fig. 1. A data stream is initiated by a user who wishes o send a facsimile, as indicated at 102. The user has created a document that fits within one of the predefined document types that the GDR system has been set up to process. The user invokes a command at the user's workstation to send information about the document he or she wishes to transmit to the GDR system engine. This step is indicated at 104. The system then begins the document recognition process, as indicated at 106. This process consists essentially of analyzing the document to determine which of the various document types previously defined by the system administrator can be applied to the current document. The GDR system access the ~~data-bank~~ databank of GDR rules, indicated at 108. The rules are, in this instance, the definitions created by the system administrator for the various recognized document types. As ~~sated~~ stated above, the rules can be based on the name of the document, can be based on

test string of the document, or can be based on any other information contained within the document that can be identifying of document type.

Page 8, delete the paragraph beginning on line 15, and insert therefor the following paragraph:

At step 110, it is assumed that the GDR system has been able to associate the input document with one of the previously defined document types. Then the system performs the data extraction step, indicated at 112, to derive from the document itself information to identify the intended recipient. As explained earlier during the description of system set-up, the data extraction can involve the system retrieving data from a defined geographic location on the document type or it can involve the system scanning the text of the document to look for a text string used to identify the recipient. Again the GDR system ~~access~~ accesses the document rules, indicate at 108, for instructions on how to accomplish this data extraction. The result of that step is the creation of a data item, indicated at 114, which identifies the recipient to whom the document is to be sent. This information may or may not include, at this point, the facsimile telephone number of the intended recipient. At step 116, the system makes a request to an external ~~data-base~~ database, or phone book, indicated at 118 to find the facsimile telephone number for the intended recipient. The system first looks in the GDR rules ~~data-base~~ database to determine for that type of document which phone book ~~data-base~~ database is to be used. Based on the rule for that document type, the system then issues a query command to the appropriate ~~data-base~~ database, internal or external, asking for the return of the facsimile telephone number of the recipient. The result, indicated at 120, is that the system has all the needed information to send the facsimile to the recipient. The document can then be passed to the facsimile transmission sever for e-mail or telephone transmission to the recipient.

Page 9, delete the paragraph beginning on line 6, and insert therefor the following paragraph:

The GDR system engine 102, operating as described in the flowchart of Fig. 1, then accesses the GDR rules and the designated phone book ~~data-base~~ database or ~~data-bases~~ databases to determine the ultimate address for transmission of the document. The document and the destination data are passed to a document handler utility 132, which passes on the document to the API 134. The FAX API 134 (an Application Programming Interface) is a dynamic library of the Faxgate software system to permit the delivery of documents into the

Faxgate system using high level commands. The Fax API 134 sends the document along to the fax queue 136 or the e-mail queue 138, whichever is designated by the phone book as the preferred method to reach the recipient. The FAX API 134 may also be described as a general purpose delivery API capable of receiving instructions to send the document by any electronic delivery methodology.

Page 13 (Abstract), delete the abstract as filed and insert therefor the following new abstract:

A general document recognition system is described which is intended to be used in connection with an electronic document transmission function used on a computer network. The general document recognition system is set up to recognize any number of document types created by application programs in the network and is also set up with rules as to how to extract destination data from each document type. The extracted data from each document can be the actual intended destination, such as a facsimile telephone number, or can be the identity of the intended recipient individual. If a recipient, rather than a destination, is extracted from the document, the general document recognition system can query a previously designated external ~~data-base~~ database to recover the destination information for that recipient. An LDAP ~~data-base~~ database is the preferred external ~~data-base~~ database for this function.